



May 21, 2009

Charles L.A. Terreni
Chief Clerk and Administrator
South Carolina Public Service Commission
Post Office Drawer 11649
Columbia, South Carolina 29211

Re: Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc.
Power Plant Performance Report
Docket No. 2006-224-E

Dear Mr. Terreni:

Enclosed is the Power Plant Performance Report for Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc. for the month of April 2009.

Sincerely,

Len S. Anthony (by dhs)

Len S. Anthony
General Counsel
Progress Energy Carolinas, Inc.

LSA/dhs
Enclosures
45612

c: John Flitter (ORS)

April 2009

The following units had no off-line outages during the month of April:

Brunswick Unit 1

Roxboro Unit 3

Brunswick Unit 2

Full Scheduled Outage

- A. Duration: The unit was taken out of service at 1:37 on February 28, and was returned to service at 15:19 on April 29. The unit was offline for 687 hours and 19 minutes for the month of April. The total duration of the outage was 1,452 hours and 42 minutes. The outage was originally scheduled to conclude at 1:37 on April 7, and was extended 541 hours and 42 minutes beyond that date.
- B. Cause: Scheduled Refueling Outage
- C. Explanation: The unit was taken out of service for a scheduled refueling outage. In addition to refueling, required maintenance and inspections were carried out during this outage. Additionally, replacement of the 2B recirculation pump motor was completed during this outage. The outage was extended beyond the originally scheduled completion date due to work on 2A recirculation pump seal replacement, circulating water piping repairs, electro hydraulic repairs, and delays associated with supplemental spent fuel pool cooling.
- D. Corrective Action: Planned outage activities, including replacement of the 2B recirculation pump motor, were completed. Upon completion of refueling, other maintenance activities, and inspections, the unit was returned to service.

Harris Unit 1

Full Scheduled Outage

- A. Duration: The unit was taken out of service at 0:00 on April 18, and remained offline for the remainder of the month. The unit was offline for 312 hours for the month of April.
- B. Cause: Scheduled Refueling Outage
- C. Explanation: The unit was taken out of service for a scheduled refueling outage. In addition to refueling, required maintenance and inspections are being carried out during this outage.
- D. Corrective Action: Planned outage activities were in progress at the end of April.

Robinson Unit 2

Full Scheduled Outage

- A. Duration: The unit was taken out of service at 23:00 on April 3, and was returned to service at 2:00 on April 5, a duration of 27 hours.
- B. Cause: Excessive Turbine Vibration
- C. Explanation: Vibration monitoring equipment revealed higher than normal main turbine vibrations on the #7 bearing and the #9 bearing. To ensure reliability for the remainder of cycle and to proactively prevent damage, a planned outage was scheduled to address higher than normal main turbine vibrations.
- D. Corrective Action: Balance weights were installed in the coupling near the #7 bearing and in the exciter fan near the #9 bearing. The intent of the balance weights was to reduce the generator rotor base unbalance to levels within normal operating conditions. Upon completion of maintenance activities, the unit was returned to service.

Mayo Unit 1

Full Scheduled Outage

- A. Duration: The unit was taken out of service at 17:50 on March 6, and was returned to service at 23:07 on April 12, a duration of 892 hours and 17 minutes. The unit was offline for a duration of 287 hours and 7 minutes during the month of April.
- B. Cause: Scheduled Boiler Inspection and Installation of Environmental Modifications
- C. Explanation: The unit was taken out of service for a planned boiler inspection and maintenance. Additionally, installation of the flue gas desulfurization system was completed.
- D. Corrective Action: Planned outage activities, including boiler inspection, periodic, preventative, and corrective maintenance, were completed. Installation of the flue gas desulfurization system was also completed. Following the completion of planned outage activities, the unit was returned to service.

Full Forced Outage

- A. Duration: The unit was taken out of service at 13:31 on April 14, and was returned to service at 17:45 on April 14, a duration of 4 hours and 14 minutes.
- B. Cause: Generator Lock-Out Due to Low Water Level in Cooling Tower Basin
- C. Explanation: During the course of testing new controls and equipment following the scheduled outage, a generator lock-out protection relay was tripped due to low water level in the cooling tower basin.
- D. Corrective Action: Plant operators adjusted controls to the circulating water system to ensure that water levels in the cooling tower basin were adequate to meet operational requirements. Upon completion of these adjustments, the unit was returned to service.

Roxboro Unit 2

Full Forced Outage

- A. Duration: The unit was taken out of service at 16:19 on April 4, and was returned to service at 20:12 on April 6, a duration of 51 hours and 53 minutes.
- B. Cause: Boiler Reheater Tube Leak
- C. Explanation: The unit was taken out of service to investigate and repair a tube leak in the reheater section of the boiler.
- D. Corrective Action: Corrective maintenance was performed to repair the tube leak, and the unit was returned to service.

Roxboro Unit 4

Full Scheduled Outage

- A. Duration: The unit was taken out of service at 23:52 on April 17, and remained offline for the remainder of the month. The unit was offline for 312 hours and 8 minutes during the month of April.
- B. Cause: Boiler Inspection
- C. Explanation: The unit was taken out of service for a planned boiler inspection.
- D. Corrective Action: Planned outage activities were in progress at the end of April.

	Month of April 2009		Twelve Month Summary		See Notes*
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MDC	938 MW		938 MW		1
Period Hours	720 HOURS		8,760 HOURS		
Net Generation	691,620 MWH		8,121,550 MWH		2
Capacity Factor	102.41 %		98.84 %		
Equivalent Availability	100.00 %		96.69 %		
Output Factor	102.41 %		101.52 %		
Heat Rate	10,360 BTU/KWH		10,382 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
	-----	-----	-----	-----	
Full Scheduled	0	0.00	123,816	1.51	3
Partial Scheduled	0	0.00	36,983	0.45	4
Full Forced	0	0.00	93,206	1.13	5
Partial Forced	0	0.00	18,111	0.22	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	675,360		8,216,880		8

* See 'Notes for Nuclear Units' filed with the January 2009 report.

** Gross of Power Agency

	Month of April 2009		Twelve Month Summary		See Notes*
MDC	920 MW		931 MW		1
Period Hours	720 HOURS		8,760 HOURS		
Net Generation	8,812 MWH		6,478,216 MWH		2
Capacity Factor	1.33 %		79.40 %		
Equivalent Availability	2.20 %		78.99 %		
Output Factor	29.31 %		99.16 %		
Heat Rate	22,676 BTU/KWH		10,635 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
	-----	-----	-----	-----	
Full Scheduled	632,332	95.46	1,336,484	16.38	3
Partial Scheduled	15,492	2.34	47,365	0.58	4
Full Forced	0	0.00	274,292	3.36	5
Partial Forced	5,764	0.87	69,731	0.85	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	662,400		8,158,480		8

* See 'Notes for Nuclear Units' filed with the January 2009 report.

** Gross of Power Agency

	Month of April 2009		Twelve Month Summary		See Notes*
MDC	900 MW		900 MW		1
Period Hours	720 HOURS		8,760 HOURS		
Net Generation	342,241 MWH		7,488,888 MWH		2
Capacity Factor	52.81 %		94.99 %		
Equivalent Availability	52.83 %		93.13 %		
Output Factor	93.20 %		101.49 %		
Heat Rate	10,715 BTU/KWH		10,767 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	280,800	43.33	280,800	3.56	3
Partial Scheduled	24,856	3.84	31,937	0.41	4
Full Forced	0	0.00	224,235	2.84	5
Partial Forced	103	0.02	9,042	0.11	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	648,000		7,884,000		8

* See 'Notes for Nuclear Units' filed with the January 2009 report.

** Gross of Power Agency

	Month of April 2009		Twelve Month Summary		See Notes*
MDC	710 MW		710 MW		1
Period Hours	720 HOURS		8,760 HOURS		
Net Generation	504,260 MWH		5,393,640 MWH		2
Capacity Factor	98.64 %		86.72 %		
Equivalent Availability	92.92 %		82.78 %		
Output Factor	105.52 %		103.92 %		
Heat Rate	10,621 BTU/KWH		10,758 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	19,170	3.75	768,030	12.35	3
Partial Scheduled	2,878	0.56	38,498	0.62	4
Full Forced	0	0.00	247,080	3.97	5
Partial Forced	0	0.00	3,512	0.06	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	511,200		6,219,600		8

* See 'Notes for Nuclear Units' filed with the January 2009 report.

	Month of April 2009		Twelve Month Summary		See Notes*
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MDC	742 MW		742 MW		1
Period Hours	720 HOURS		8,760 HOURS		
Net Generation	211,448 MWH		3,777,817 MWH		2
Capacity Factor	39.58 %		58.12 %		
Equivalent Availability	55.36 %		86.70 %		
Output Factor	66.48 %		65.78 %		
Heat Rate	11,142 BTU/KWH		10,725 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
	-----	-----	-----	-----	
Full Scheduled	213,041	39.88	706,929	10.88	3
Partial Scheduled	19,743	3.70	75,398	1.16	4
Full Forced	3,141	0.59	49,615	0.76	5
Partial Forced	2,566	0.48	32,365	0.50	6
Economic Dispatch	84,301	15.78	1,857,796	28.58	7
Possible MWH	534,240		6,499,920		8

* See 'Notes for Fossil Units' filed with the January 2009 report.

** Gross of Power Agency

	Month of April 2009		Twelve Month Summary		See Notes*
MDC	662 MW		668 MW		1
Period Hours	720 HOURS		8,760 HOURS		
Net Generation	380,914 MWH		4,437,457 MWH		2
Capacity Factor	79.92 %		75.83 %		
Equivalent Availability	91.48 %		88.81 %		
Output Factor	86.12 %		84.99 %		
Heat Rate	8,733 BTU/KWH		8,951 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	339,292	5.80	3
Partial Scheduled	198	0.04	35,384	0.60	4
Full Forced	34,347	7.21	228,538	3.91	5
Partial Forced	6,064	1.27	51,307	0.88	6
Economic Dispatch	55,118	11.56	760,071	12.99	7
Possible MWH	476,640		5,851,680		8

* See 'Notes for Fossil Units' filed with the January 2009 report.

	Month of April 2009		Twelve Month Summary		See Notes*
MDC	695 MW		702 MW		1
Period Hours	720 HOURS		8,760 HOURS		
Net Generation	345,937 MWH		4,245,659 MWH		2
Capacity Factor	69.13 %		69.07 %		
Equivalent Availability	99.73 %		94.05 %		
Output Factor	69.13 %		71.30 %		
Heat Rate	10,580 BTU/KWH		10,948 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
	-----	-----	-----	-----	
Full Scheduled	0	0.00	175,522	2.86	3
Partial Scheduled	1,374	0.27	96,627	1.57	4
Full Forced	0	0.00	11,996	0.20	5
Partial Forced	0	0.00	81,981	1.33	6
Economic Dispatch	153,089	30.59	1,535,226	24.98	7
Possible MWH	500,400		6,146,600		8

* See 'Notes for Fossil Units' filed with the January 2009 report.

	Month of April 2009		Twelve Month Summary		See Notes*
MDC	698 MW		698 MW		1
Period Hours	720 HOURS		8,760 HOURS		
Net Generation	223,537 MWH		4,222,219 MWH		2
Capacity Factor	44.48 %		69.05 %		
Equivalent Availability	55.98 %		93.98 %		
Output Factor	78.52 %		73.83 %		
Heat Rate	10,788 BTU/KWH		10,614 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
	-----	-----	-----	-----	
Full Scheduled	217,869	43.35	278,734	4.56	3
Partial Scheduled	0	0.00	21,964	0.36	4
Full Forced	0	0.00	0	0.00	5
Partial Forced	3,371	0.67	67,337	1.10	6
Economic Dispatch	57,783	11.50	1,524,225	24.93	7
Possible MWH	502,560		6,114,480		8

* See 'Notes for Fossil Units' filed with the January 2009 report.

** Gross of Power Agency

Plant	Unit	Current MW Rating	January 2008 - December 2008	April 2009	January 2009 - April 2009
Asheville	1	191	67.84	77.92	79.49
Asheville	2	185	64.83	58.12	66.67
Cape Fear	5	144	69.98	62.96	73.75
Cape Fear	6	172	61.62	76.88	65.64
Lee	1	74	62.88	49.72	47.40
Lee	2	77	50.49	43.25	42.05
Lee	3	246	38.21	68.21	63.13
Mayo	1	742	62.59	39.58	51.73
Robinson	1	174	65.88	67.60	66.86
Roxboro	1	369	69.79	88.28	88.48
Roxboro	2	662	78.24	79.92	79.93
Roxboro	3	695	66.00	69.13	72.73
Roxboro	4	698	70.32	44.48	68.24
Sutton	1	93	46.46	10.47	37.29
Sutton	2	104	55.49	35.98	44.22
Sutton	3	403	56.73	49.25	50.30
Weatherspoon	1	48	42.83	25.88	17.83
Weatherspoon	2	49	41.04	24.48	23.91
Weatherspoon	3	75	56.58	12.12	26.16
Fossil System Total		5,201	64.48	58.71	64.95
Brunswick	1	938	85.33	102.41	101.77
Brunswick	2	920	95.43	1.33	49.32
Harris	1	900	98.94	52.81	90.66
Robinson Nuclear	2	710	87.02	98.64	105.32
Nuclear System Total		3,468	91.90	61.95	85.70
Total System		8,669	75.45	60.01	73.25

Amended SC Fuel Rule
Related to Nuclear Operations

There shall be a rebuttable presumption that an electrical utility made every reasonable effort to minimize cost associated with the operation of its nuclear generation system if the utility achieved a net capacity factor of $\geq 92.5\%$ during the 12 month period under review. For the test period April 1, 2009 through April 30, 2009, actual period to date performance is summarized below:

Period to Date: April 1, 2009 to April 30, 2009

Nuclear System Capacity Factor Calculation (Based on net generation)

A.. Nuclear system actual generation for SCPSC test period	A =	1,546,933 MWH
B. Total number of hours during SCPSC test period	B =	720 hours
C. Nuclear system MDC during SCPSC test period (see page 2)	C =	3,468 MW
D. Reasonable nuclear system reductions (see page 2)	D =	975,527 MWH
A. SC Fuel Case nuclear system capacity factor: $[(A + D) / (B + C)] * 100 =$	101.0%	

NOTE:

If Line Item E $> 92.5\%$, presumption of utility's minimum cost of operation.

If Line Item E $< 92.5\%$, utility has burden of proof of reasonable operations.

Amended SC Fuel Rule
Nuclear System Capacity Factor Calculation
Reasonable Nuclear System Reductions
Period to Date: April 1, 2009 to April 30, 2009

Nuclear Unit Name and Designation	BNP Unit # 1	BNP Unit # 2	HNP Unit # 1	RNP Unit # 2	Nuclear System
Unit MDC	938 MW	920 MW	900 MW	710 MW	3,468 MW
Reasonable refueling outage time (MWH)	0	632,331	280,800	0	
Reasonable maintenance, repair, and equipment replacement outage time (MWH)	0	0	0	22,048	
Reasonable coast down power reductions (MWH)	0	0	24,856	0	
Reasonable power ascension power reductions (MWH)	0	15,492	0	0	
Prudent NRC required testing outages (MWH)	0	0	0	0	
SCPSC identified outages not directly under utility control (MWH)	0	0	0	0	
Acts of Nature reductions (MWH)	0	0	0	0	
Reasonable nuclear reduction due to low system load (MWH)	0	0	0	0	
Unit total excluded MWH	0	647,823	305,656	22,048	
Total reasonable outage time exclusions [carry to Page 1, Line D]					975,527